

CLAIMS

1. A polyamide-based laminated film with a multi-layered structure including 5 or more layers, comprising (a) an aromatic polyamide layer, (b) an aliphatic polyamide layer and (c) a layer made of a mixture containing an aromatic polyamide and an aliphatic polyamide at a weight ratio of 5:95 to 20:80, said layer (c) being disposed adjacent to the layer (a) and/or the layer (b), and said film having 5 or less pinholes per 497 cm² as measured after subjecting the film to 3000 cycles of repeated flexing operation at a temperature of 23°C and a relative humidity of 50%, using a Gelboflex tester.

2. The polyamide-based laminated film according to claim 1, wherein said film has a multi-layered structure in which the layer (b), the layer (c) and the layer (a) are sequentially laminated on each other in this order.

3. The polyamide-based laminated film according to claim 2, wherein said film has a multi-layered structure in which the layer (b), the layer (c), the layer (a), the layer (c) and the layer (b) are sequentially laminated on each other in this order.

4. The polyamide-based laminated film according to any one of claims 1 to 3, wherein said film comprises two or more layers (c) having different compositions from each other.

5. The polyamide-based laminated film according to any one of claims 1 to 4, wherein the layer (a) contains a flex/pinhole resistance modifying agent in an amount of 0.1 to 10% by weight.

6. The polyamide-based laminated film according to claim 5, wherein the layer (c) and/or the layer (b) contain a flex/pinhole resistance modifying agent

in an amount of 0.1 to 10% by weight.

7. The polyamide-based laminated film according to any one of claims 1 to 6, wherein the film is a monoaxially or multi-axially stretched film which is stretched at a stretch ratio of 2 to 8 times in at least one direction thereof.

8. The polyamide-based laminated film according to claim 7, wherein the film is a biaxially stretched film which is stretched at a stretch ratio of 2.5 to 5 times in each of longitudinal and lateral directions thereof.

9. The polyamide-based laminated film according to any one of claims 1 to 8, wherein the layer (a) is an aromatic polyamide layer containing the aliphatic polyamide in an amount of 0 to 5% by weight.

10. The polyamide-based laminated film according to any one of claims 1 to 9, wherein the layer (b) is an aliphatic polyamide layer containing the aromatic polyamide in an amount of 0 to 5% by weight.

11. The polyamide-based laminated film according to any one of claims 1 to 10, wherein at least one layer of the film is a polyamide-based resin layer containing a hindered phenol-based antioxidant in an amount of 0.01 to 0.5% by weight, and a thickness of the polyamide-based resin layer is 10% or more but less than 80% of a whole thickness of the film.

12. The polyamide-based laminated film according to claim 11, wherein the hindered phenol-based antioxidant is at least one compound selected from the group consisting of N,N'-hexamethylenebis(3,5-di-t-butyl-4-hydroxy-hydrocinnamide), 3,5-di-t-butyl-4-hydroxy-benzylphosphonate-diethyl ester,

1,3,5-trimethyl-2,4,6-tris(3,5-di-t-butyl-4-hydroxy-benzyl)benzene and
pentaerythrityl-tetrakis[3-(3,5-di-t-butyl-4-hydroxyphenyl)propionate].

13. The polyamide-based laminated film according to claim 11 or 12,
5 wherein the polyamide-based resin layer containing the hindered phenol-based
antioxidant is made of nylon-6 and/or nylon-66. .

14. The polyamide-based laminated film according to any one of claims 1
to 13, wherein in addition to the layers (a), (b) and (c), the film further
10 comprises (d) a layer made of a saponified ethylene-vinyl acetate copolymer.